WATER SUPPLY OUTLOOK

KOOTENAI RIVER BASIN

MONTANA

AS OF:

APRIL 1, 1962

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

The water supply outlook for the Kootenai River drainage during the coming spring and summer months is for below average streamflow.

Snow surveys made in Canada and Montana near the first of April indicate the water stored in the mountain snowpack is 15 percent less than last year and 89 percent of the 1943-57 average.

Streamflow during the spring and summer months is expected to be slightly below average and less than last year. Streams tributary to the Kootenai River in Montana should produce less water than last year and near average flows.

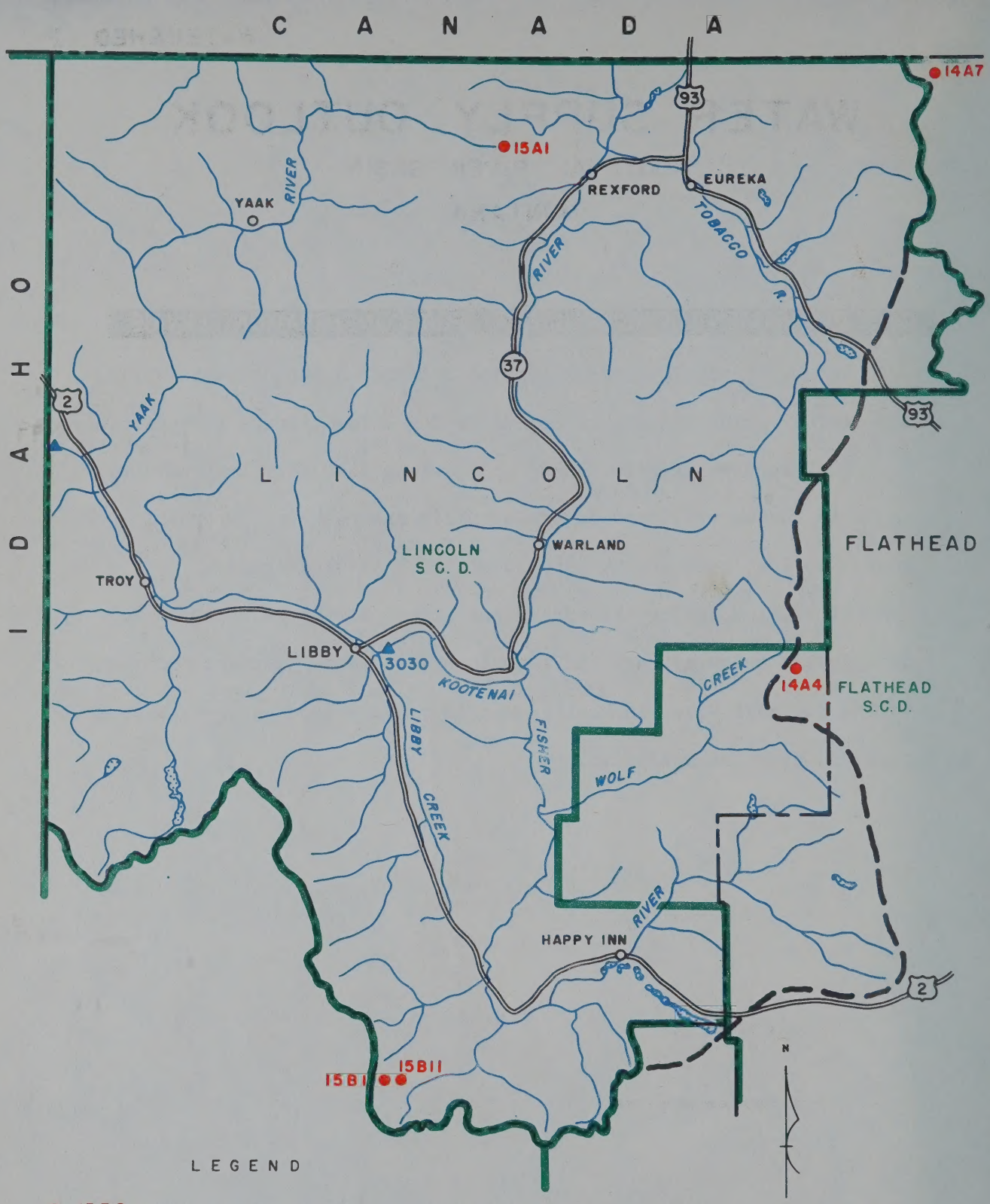
Report Prepared by

A. R. CODD AND P. E. FARNES
U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
BOX 855 BOZEMAN, MONTANA

THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY

USDA SCS LINCOLN NEBR 1960

5,L-16,507.1



USDA-SCS-LINCOLN, NEBR 1960

5,L-16,507.2

WATER SUPPLY FORECASTS

WATERSHED I

AS OF APRIL 1, 1962

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW	
					LAST YEAR*	AVERAGE
	KOOTENAI RIVER					
3030	Libby (at)	Apr-Sept	7200	93	8764	7723
		Apr-July	6240	93	7759	6694
3050	Leonia (at)	Apr-Sept	8280	93	10002	8907
		Apr-July	7300	93	8997	7817

*PROVISIONAL DATA FURNISHED BY U.S. GEOLOGICAL SURVEY

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD).

SNOW SURVEY DATA

AS OF APRIL 1, 1962

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
						WATER CONTENT	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE
15B11	Baree Creek	5500	3/30	125	51.2	52.1	48.7*
14A4	Brush Creek	5000	3/20	38	10.7	12.2	15.2*
Can. 10	Fernie	3500	3/30	25	9.6	8.3	9.3
Can. 12A	Field	4200	3/30	19	5.5	5.2	5.2
Can. 43	Gray Creek	5100	3/31	61	18.7	22.1	19.8*
Can. 33	Kicking Horse	5400	3/30	47	12.8	15.1	14.9*
Can. 20B	Kimberley	3800	3/31	22	7.3	9.3	6.8
Can. 32	Marble Canyon	5000	4/1	53	9.0	11.3	13.9*
Can. 10A	New Fernie	4100	3/30	50	15.4	16.5	15.4*
15A1	Red Mountain	6000	3/22	52	15.8	22.9	21.5
Can. 8A	Sinclair Pass	4500	4/1	17	3.8	4.8	6.0
Can. 20A	Sullivan Mine	5100	3/30	44	11.5	16.7	15.4*
Can. 41	Upper Elk River	4400	3/30	15	6.4	8.5	8.3
14A7	Weasel Divide	5450	3/20	88	30.6	38.6	33.4

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD). *ADJUSTED AVERAGE

WATER SUPPLY OUTLOOK

FLATHEAD RIVER BASIN

MONTANA

AS OF:

APRIL 1, 1962

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

The water supply outlook for the coming spring and summer months in the Flathead River basin is Good.

Snow surveys made near the first of April indicate the water stored in the mountain snowpack is 10 percent above last year and the same as the 1943-57 average.

Streamflow during the spring and summer months is forecast to be near average on all tributaries of the Flathead River. The Swan River is expected to flow slightly more than last year and 113 percent of average.

Soil moisture under the snowpack is near average and slightly more than at this time last year.

Report Prepared by

A. R. CODD AND P. E. FARNES
U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
BOX 855 BOZEMAN, MONTANA

THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY

USDA SCS LINCOLN NEBR 1960

5,L-16,398.1

USDA-SCS-LINCOLN NEBR 1960

5,L-16,398

WATER SUPPLY FORECASTS

WATERSHED II

AS OF APRIL 1, 1962

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW LAST YEAR*	MEASURED FLOW AVERAGE
	NORTH FORK FLATHEAD RIVER					
3555	Columbia Falls (near)	Apr-Sept	1891	97	2044	1942
		Apr-July	1710	97	1905	1769
		Apr-June	1426	96	1720	1491
	MIDDLE FORK FLATHEAD RIVER					
3585	West Glacier (near)	Apr-Sept	1990	106	1852	1882
		Apr-July	1842	106	1748	1747
		Apr-June	1571	106	1578	1487
	SOUTH FORK FLATHEAD RIVER					
3625	Columbia Falls (nr) (17)	Apr-Sept	2520	110	2265	2297
		Apr-July	2405	110	2175	2180
		Apr-June	2084	110	2036	1901
	FLATHEAD RIVER					
3630	Columbia Falls (at) (17)	Apr-Sept	6569	104	6218	6299
		Apr-July	6066	104	5879	5846
		Apr-June	5192	104	5369	4993
3720	Polson (near) (18)	Apr-Sept	7898	105	7456	7463
		Apr-July	7282	105	7044	6939
		Apr-June	6184	105	6431	5896
	SWAN RIVER					
3700	Big Fork (near)	Apr-Sept	728	113	707	641
		Apr-July	644	113	633	568
		Apr-June	517	112	551	460

(17) Corrected for storage in Hungry Horse Reservoir.
(18) Corrected for storage in Hungry Horse Reservoir and Flathead Lake.

*PROVISIONAL DATA FURNISHED BY U. S. GEOLOGICAL SURVEY

RESERVOIR STORAGE DATA

AS OF MARCH 31, 1962

(1000 Acre Feet)

NO.	RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE
3620	Hungry Horse	3428.0	2200.0	2763.0	2177.0**
3710	Flathead	1791.0	598.3	1043.0	628.8**
3757	Camas (4)	45.2	29.2	27.2	26.5
3800	Mission Valley (8)	100.3	26.9	33.9	38.6

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD)

SNOW SURVEY DATA

AS OF APRIL 1, 1962

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
						WATER CONTENT	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE
13B14A	Basin Creek	5000	3/29	38	10.7	8.8	10.5*
14B3	Bassoo Peak	5150	3/27	43	13.6	7.9	-
13B3	Big Creek	6750	3/29	127	49.2	45.2	43.4
14A4	Brush Creek	5000	3/20	38	10.7	12.2	15.2*
13A17	Camp Misery	6400	3/23	112	38.7	-	-
13A2M	Desert Mountain	5600	3/26	57	17.0	14.1	16.6
13B4	Fatty Creek	5500	3/30	70	22.8	-	-
Can. 10	Fernie	3500	3/30	25	9.6	8.3	9.3
14A9	Griffin Creek Divide	5150	4/2	43	14.4	8.9	-
14A3	Hell Roaring Divide	5770	4/3	82	30.0	32.6	31.7
13B13A	Holbrook	4530	3/29	37	11.4	7.0	10.1*
14A6	Kishenehn	3886	3/29	32	9.4	6.1	10.8
14A5	Logan Creek	4300	3/20	36	9.4	6.2	9.8
13A5M	Marias Pass	5250	3/27	56	18.1	15.6	20.3
13A16	Mineral Creek	4000	4/2	50	15.2	17.2	23.9
Can.10A	New Fernie	4100	3/30	50	15.4	16.5	15.4*
13B7	North Fork Jocko	6330	3/30	119	49.3	44.4	44.4
13A13	Quintonkon	3800	3/28	48	15.6	9.9	14.8*
13B2	Spotted Bear Mt.	7000	3/29	53	16.2	12.6	15.6*
13A10	Strawberry Lake	6500	3/29	106	39.2	42.5	42.5*
13B1	Trinkus Lake	6500	3/29	118	42.2	42.0	41.5*
13A12M	Trout Lake	3600	3/30	43	15.6	7.0	16.4*
14B1	TV Mountain	6800	3/30	62	20.5	16.0	19.0*
13B11	Twin Creeks	3580	3/30	37	12.0	7.0	10.6*
13B5	Upper Holland Lake	7000	3/29	102	38.0	29.4	34.3*
14A7	Weasel Divide	5450	3/20	88	30.6	38.6	33.4

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD). *ADJUSTED AVERAGE

WATER SUPPLY OUTLOOK

LOWER CLARK FORK RIVER BASIN

MONTANA

AS OF:

APRIL 1, 1962

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

The water supply outlook for the coming irrigation season is Good.

Snow surveys made near the first of April indicate the water stored in the mountain snowpack is about 15 percent more than last year and 5 percent greater than the 1943-57 average.

Streamflow forecasts for the spring and summer months are near average. The lowest forecast, 98 percent average, is on the headwaters of the Clark Fork. All streams are expected to produce more water than last year. The headwaters of the Blackfoot, Clark Fork and Bitterroot should flow 40 to 60 percent more than last year.

Soil moisture has improved and is near average in the lower portion of the drainage.

Report Prepared by

A. R. CODD AND P. E. FARNES
U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
BOX 855 BOZEMAN, MONTANA

THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY

USDA SCS LINCOLN NEBR 1960

5,L-16,506.1

N
MONTANA
III
SCALE 10 0 10 20 30 40 MILES
GREEN MOUNTAIN S.C.D.
10A
3920
NOXON
15B1
15B11
CLARK FORK R.
SANDERS
THOMPSON FALLS
3910
THOMPSON R.
EASTERN SANDERS COUNTY S.C.D.
28
10
15B2
SALTESE
PLAINS
3890
PARADISE
FLATHEAD R.
ST. REGIS R.
ST. REGIS
3545
93
RAVALLI
ARLEE
SUPERIOR
MINERAL
15B10
15C1
ALBERTON
CLARK FORK R.
MINERAL CO S.C.D.
13B5
NORTH POWELL S.C.D.
13B10
13B7
CLEARWATER R.
MISSOULA S.C.D.
10A
14B1
13C1
CLEARWATER
3385
MISSOULA
3530
3495
3405
3404
3400
BONNER
20
13C8
LOLO
LOLO HOT SPRINGS
BONITA
10
FORK
BITTERROOT R.
93
14C5
14C6
14C4
BITTERROOT S.C.D.
IDAHO
LEGEND
13E2 SNOW SURVEY COURSE
12D2M SOIL MOISTURE STATION
13B3A AERIAL MARKER AT SNOW COURSE
0125 STREAM GAGING STATION
DRAINAGE
S.C.D. BOUNDARY
WATERSHED BOUNDARY
HIGHWAY
TOWN
COUNTY BOUNDARY
STATE BOUNDARY

WATER SUPPLY FORECASTS

WATERSHED III

AS OF APRIL 1, 1962

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW	
					LAST YEAR*	AVERAGE
	BLACKFOOT RIVER					
3400	Bonner (near)	Apr-Sept	1055	106	775	1000
		Apr-July	962	106	705	907
		Apr-June	822	106	636	775
	BITTERROOT RIVER					
3528	Missoula (near)(16)	Apr-Sept	1586	102	1109	1557
		Apr-July	1479	102	1032	1450
		Apr-June	1275	102	978	1244
	CLARK FORK RIVER					
3404	Milltown (above)(14)	Apr-Sept	796	98	478	815
		Apr-July	702	98	404	716
		Apr-June	596	98	356	609
3405	Missoula (above)	Apr-Sept	1851	102	1251	1814
		Apr-July	1664	102	1110	1620
		Apr-June	1418	102	992	1384
3530	Missoula (below)	Apr-Sept	3437	102	2360	3361
		Apr-July	3143	103	2142	3059
		Apr-June	2693	103	1970	2608
3545	St. Regis (at)	Apr-Sept	4700	103	3454	4549
		Apr-July	4280	103	3148	4140
		Apr-June	3652	103	2873	3550
3890	Plains (near)(18)	Apr-Sept	12930	104	11362	12337
		Apr-July	11760	104	10600	11316
		Apr-June	10080	104	9677	9625
3920	Whitehorse Rapids (at)(18)	Apr-Sept	14502	104		13932
		Apr-July	13321	104		12763
		Apr-June	11272	104		10816

(14) Difference in observed flow, Clark Fork above Missoula & Blackfoot at Bonner.
(16) Difference in observed flow, Clark Fork above and below Missoula.
(18) Corrected for storage in Flathead Lake & Hungry Horse Reservoir.

* PROVISIONAL DATA FURNISHED BY U.S. GEOLOGICAL SURVEY

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD).

SNOW SURVEY DATA

AS OF APRIL 1, 1962

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
						WATER CONTENT	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE
15B11	Baree Creek	5500	3/30	125	51.2	52.1	48.7*
13B10	Coyote Hill	4200	3/28	39	13.0	6.5	10.6*
15B10	Freezeout Summit	6800	Discontinued			36.9	36.8
15C1	Hoodoo Creek	6200	4/2	131	50.7	51.8	53.2
14C5	Lolo Pass	5230	3/27	100	39.0	31.4	36.7*
15B2	Lookout	5250	3/27	122	42.8	37.3	39.0*
13C8	Lubrecht Forest #6	4040	3/31	19	6.4	0	2.5*
13B7	N. Fork Jocko	6330	3/30	119	49.3	44.4	44.4
14C6	Powell R. S.	4230	3/27	38	14.1	10.2	14.0*
14C4	Savage Pass	6600	3/27	79	28.4	24.7	30.3*
14B1	TV Mountain	6800	3/30	62	20.5	16.0	19.0*

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD). *ADJUSTED AVERAGE

WATER SUPPLY OUTLOOK

UPPER CLARK FORK RIVER BASIN

MONTANA

AS OF:

APRIL 1, 1962

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

The water supply outlook for the coming irrigation season is Good.

Snow surveys made near the first of April show the water stored in this year's snowpack is slightly above average and 50 percent more than last year.

Two new snow courses, Copper Creek and Cotter Mine, have been established in the Blackfoot drainage North of Lincoln.

Streamflow is forecast to be near average on all tributaries. Heavy snowfall occurred during the last of March. Above average temperatures or rainfall could cause above average early season runoff from the lower elevations.

Soil moisture is improving and should be near average in most areas.

Report Prepared by

A. R. CODD AND P. E. FARNES
U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
BOX 855 BOZEMAN, MONTANA

THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY

USDA SCS LINCOLN NEBR 1960

5,L-16,396.1

USDA SCS LINCOLN NEBR 1960

5,L-16,396

WATER SUPPLY FORECASTS

WATERSHED IV

AS OF APRIL 1, 1962

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW LAST YEAR*	MEASURED FLOW AVERAGE
	FLINT CREEK					
3295	Maxville (at)	Apr-Sept	47.0	101	30.2	46.4
		Apr-July	35.3	100	21.4	35.4
	BOULDER CREEK					
3300	Maxville (at)	Apr-Sept	26.5	94	15.2	28.2
		Apr-July	24.4	95	14.0	25.8
	MIDDLE FORK ROCK CREEK					
3320	Philipsburg (near)	Apr-Sept	78.3	98	57.6	80.2
		Apr-July	70.7	98	52.8	72.1
	BLACKFOOT RIVER					
3400	Bonner (near)	Apr-Sept	1055	106	775	1000
		Apr-July	962	106	705	907
		Apr-June	822	106	636	775
	CLARK FORK RIVER					
3404	Milltown (above)(14)	Apr-Sept	796	98	478	815
		Apr-July	702	98	404	716
		Apr-June	596	98	356	609

(14) Difference in observed flow, Clark Fork above Missoula and Blackfoot at Bonner.

*PROVISIONAL DATA FURNISHED BY U. S. GEOLOGICAL SURVEY

RESERVOIR STORAGE DATA

AS OF MARCH 31, 1962

(1000 Acre Feet)

NO.	RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE
3250	Georgetown Lake	31.0	20.9	22.6	21.6

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD)

SNOW SURVEY DATA

AS OF APRIL 1, 1962

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
						WATER CONTENT	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE
13C16	Ambrose	6475	3/26	45	15.2	11.0	-
13C13	Black Pine	7100	3/27	44	13.6	10.1	-
12C5	Chessman Reservoir	6200	3/28	25	5.0	1.2	5.1
12B10	Copper Creek	5700	3/21	53	16.8	-	-
12B11	Cotter Mine	6250	3/21	56	18.4	-	-
13C9	El Dorado Mine	7800	3/26	66	22.6	15.0	22.7*
13C11	Fred Burr Pass	8000	3/29	82	24.7	20.0	27.0*
13C10	Gold Creek Lake	7200	3/26	53	16.6	11.5	17.2*
13C4	Intergaard	6450	4/2	38	10.4	6.6	7.9*
13C8	Lubrecht Forest #6	4040	3/31	19	6.4	0	2.5*
12D1	Pipestone Pass	7200	3/23	29	6.9	4.9	6.0
13C12	Red Lion	7100	3/29	64	16.8	12.0	18.0*
13C3	Skalkaho Summit	7259	3/27	76	26.6	23.3	27.1
13C2	Slide Rock Mt.	7100	3/28	54	16.7	11.0	15.9
13C5	Southern Cross	6500	4/2	30	9.5	5.0	5.9*
12C1	Stemple Pass	6900	3/27	40	10.2	6.8	11.0
13C7	Storm Lake	7780	3/29	57	15.7	11.2	15.6
13C6	Stuart Mill	6500	4/2	30	9.0	4.8	6.9*
12C2	Tenmile, Lower	6250	3/26	29	8.0	4.3	7.1
12C3	Tenmile, Middle	6800	3/25	42	11.0	7.5	11.3
12C4	Tenmile, Upper	8000	3/25	47	14.0	9.5	14.4

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD). *ADJUSTED AVERAGE

WATER SUPPLY OUTLOOK

BITTERROOT RIVER BASIN

MONTANA

AS OF:

APRIL 1, 1962

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

The water supply outlook for the coming irrigation season in the Bitterroot drainage is Good.

Snow surveys made near the first of April show the mountain snowpack is 25 percent more than last year and 5 percent below the 1943-57 average.

Streamflow for the coming irrigation season is forecast to be near average and 20 to 50 percent more than last year.

Good soil moisture under the snowpack and early season accumulation of snow should provide a good late season water supply.

Report Prepared by

A. R. CODD AND P. E. FARNES
U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
BOX 855 BOZEMAN, MONTANA

THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY

USDA SCS LINCOLN NEBR 1960

5,L-16,518.1

93
FLORENCE
13C16
STEVENSVILLE
BURNT FORK
3510
VICTOR
RIVER
MONTANA
WOODSIDE
CORVALLIS
BLODGETT CR.
3475
HAMILTON
13C3
38
GRANTSDALE
14C8
14C7
3445
COMO RES
ROCK CR.
BITTERROOT
BITTERROOT S.C.D.
DARBY
CONNER
3440
R A V A L L I
13D1
FORK
3434
SULA
EAST FORK
WEST FORK
14D2
14D1
14D3
3425
3420
13D2
13D16
ALTA
93
LEGEND
13E2 SNOW SURVEY COURSE
12D2M SOIL MOISTURE STATION
13B3A AERIAL MARKER AT SNOW COURSE
0125 STREAM GAGING STATION
DRAINAGE
S.C.D. BOUNDARY
WATERSHED BOUNDARY
HIGHWAY
TOWN
COUNTY BOUNDARY
STATE BOUNDARY
SCALE 5 0 5 10 15 20 MILES
USDA-SCS-LINCOLN NEBR. 1960

5,L-16,518.2

WATER SUPPLY FORECASTS

WATERSHED V

AS OF APRIL 1, 1962

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW LAST YEAR*	MEASURED FLOW AVERAGE
	WEST FORK BITTERROOT RIVER					
3425	Conner (near) (15)	Apr-Sept	177	100	-	176
		Apr-July	163	100	-	164
	BITTERROOT RIVER					
3440	Darby (near)	Apr-Sept	583	100	402	587
		Apr-July	544	100	366	547
		Apr-June	478	100	339	477
3528	Missoula (near) (16)	Apr-Sept	1586	102	1109	1557
		Apr-July	1479	102	1032	1450
		Apr-June	1275	102	978	1244
	BLODGETT CREEK					
3475	Corvallis (near)	Apr-Sept	46.6	100	38.5	46.7
		Apr-July	44.5	100	37.1	44.4
	BURNT FORK CREEK					
3510	Stevensville (near)	Apr-Sept	29.8	95	20.9	31.2
		Apr-July	26.5	95	18.7	28.0

(15) Corrected for storage in West Fork Bitterroot River Reservoir.
(16) Difference in observed flow, Clark Fork above and below Missoula.

*PROVISIONAL DATA FURNISHED BY U. S. GEOLOGICAL SURVEY

RESERVOIR STORAGE DATA

AS OF MARCH 31, 1962

(1000 Acre Feet)

NO.	RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE
3445	Como Lake	34.8	15.6	-	12.4

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD)

SNOW SURVEY DATA

AS OF APRIL 1, 1962

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
						WATER CONTENT	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE
13C16	Ambrose	6475	3/26	45	15.2	11.0	-
13D1	East Fork R. S.	5400	4/2	20	6.6	4.7	7.1
13D2	Gibbons Pass	7100	3/29	69	22.5	18.6	25.4
14D3	Kit Carson	4700	3/29	28	7.8	5.7	9.0
14C5	Lolo Pass	5230	3/27	100	39.0	31.4	36.7*
14C7	Lost Horse	5940	3/28	91	33.4	32.6	-
13D16	Moose Creek	6200	3/27	45	14.6	11.8	18.3
14D2	Nez Perce Camp	5580	3/29	48	15.8	10.9	15.5
14D1	Nez Perce Pass	6575	3/29	52	17.3	11.7	19.7
14C6	Powell R. S.	4230	3/27	38	14.1	10.2	14.0*
14C4	Savage Pass	6600	3/27	79	28.4	24.7	30.3*
13C3	Skalkaho Summit	7259	3/27	76	26.6	23.3	27.1
14C8	Twin Lakes	6510	3/28	120	44.6	40.4	-

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD). *ADJUSTED AVERAGE

WATER SUPPLY OUTLOOK

MARIAS, TETON, & SUN RIVER BASINS

MONTANA

AS OF:

APRIL 1, 1962

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

The water supply outlook for the coming irrigation season is Fair to Good.

Snow surveys made near the first of April indicate this year's snowpack is 15 percent greater than last year and 12 percent less than the 1943-57 average. Accumulation of snow during March was generally below average.

Streamflow during the spring and summer months is forecast to be 20 to 50 percent more than last year and 5 to 10 percent below average.

Storage is still below average for all reservoirs. The prospect for filling these reservoirs during spring runoff remains good.

Report Prepared by

A. R. CODD AND P. E. FARNES
U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
BOX 855 BOZEMAN, MONTANA

THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY

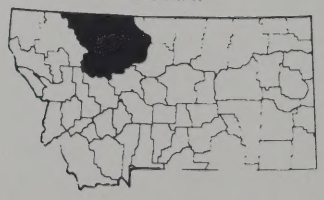
USDA SCS LINCOLN NEBR 1960

5,L-16,502.1

LEGEND

- 13E2 SNOW SURVEY COURSE
- 12D2M SOIL MOISTURE STATION
- 13B3A AERIAL MARKER AT SNOW COURSE
- 0125 STREAM GAGING STATION
- DRAINAGE
- S C D BOUNDARY
- WATERSHED BOUNDARY
- HIGHWAY
- TOWN
- COUNTY BOUNDARY
- STATE BOUNDARY

VI



SCALE 10 0 10 20 30 40 MILES

5,L-16,502.2

WATER SUPPLY FORECASTS

WATERSHED VI

AS OF APRIL 1, 1962

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW LAST YEAR*	MEASURED FLOW AVERAGE
	NORTH FORK SUN RIVER					
0785	Augusta (near)	Apr-Sept	225	94		239
		Apr-July	203	92		222
	SUN RIVER					
0786	Gibson Dam (at) (10)	Apr-Sept	557	95	474	588
		Apr-July	510	95	440	538
	MARIAS RIVER					
0995	Shelby (near)	Apr-Sept	585	89	390	659
		Apr-July	557	89	386	605

(10) Corrected for storage in Gibson Reservoir and diversions.

*PROVISIONAL DATA FURNISHED BY U. S. GEOLOGICAL SURVEY

RESERVOIR STORAGE DATA

AS OF MARCH 31, 1962

(1000 Acre Feet)

NO.	RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE
1013	Tiber	1316.0	625.4	644.9	653.8**
0955	Lake Francis	112.0	78.2	78.6	96.0
0805	Pishkun	32.0	16.7	16.7	18.6
0795	Gibson	105.0	41.0	38.6	66.4
0820	Willow Creek	32.3	11.0	19.9	20.2
0940	Swift	30.0	18.3	15.8	24.7

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD)

SNOW SURVEY DATA

AS OF APRIL 1, 1962

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
						WATER CONTENT	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE
12B8	Benchmark	5500	No measurement			6.6	10.0*
12B6	Cabin Creek	5400	3/29	28	7.0	4.5	7.1*
12B9	Five Bull	5600	No measurement			3.2	7.5*
12A1	Freight Creek	6000	3/22	42	14.4	13.9	17.4*
12B5	Gates Park	5300	3/29	35	10.6	8.3	11.0*
12B7	Goat Mountain	7000	3/31	40	12.1	9.4	12.4
13A5M	Marias Pass	5250	3/27	56	18.1	15.6	20.3
12B2	Waldron Creek	5600	3/22	18	6.3	3.2	7.7*
12B1	West Fork	6000	No measurement			9.3	17.7*
12B4	Wrong Creek	5700	3/29	44	14.6	14.7	16.2*
12B3	Wrong Ridge	6800	3/29	58	18.4	19.5	23.1*

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD). *ADJUSTED AVERAGE

WATER SUPPLY OUTLOOK

MISSOURI RIVER (MAIN STEM) BASIN

MONTANA

AS OF:
APRIL 1, 1962

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

The water supply outlook for the coming irrigation season is Fair to Good.

Snow surveys made near the first of April indicate water stored in the mountain snowpack is 70 percent more than last year and the same as the 1943-57 average.

Streamflow during the spring and summer months is forecast to be 85 to 95 percent of the 1943-57 average on streams flowing into the Missouri.

Streamflow should be 50 to 100 percent more than last year for streams in this area.

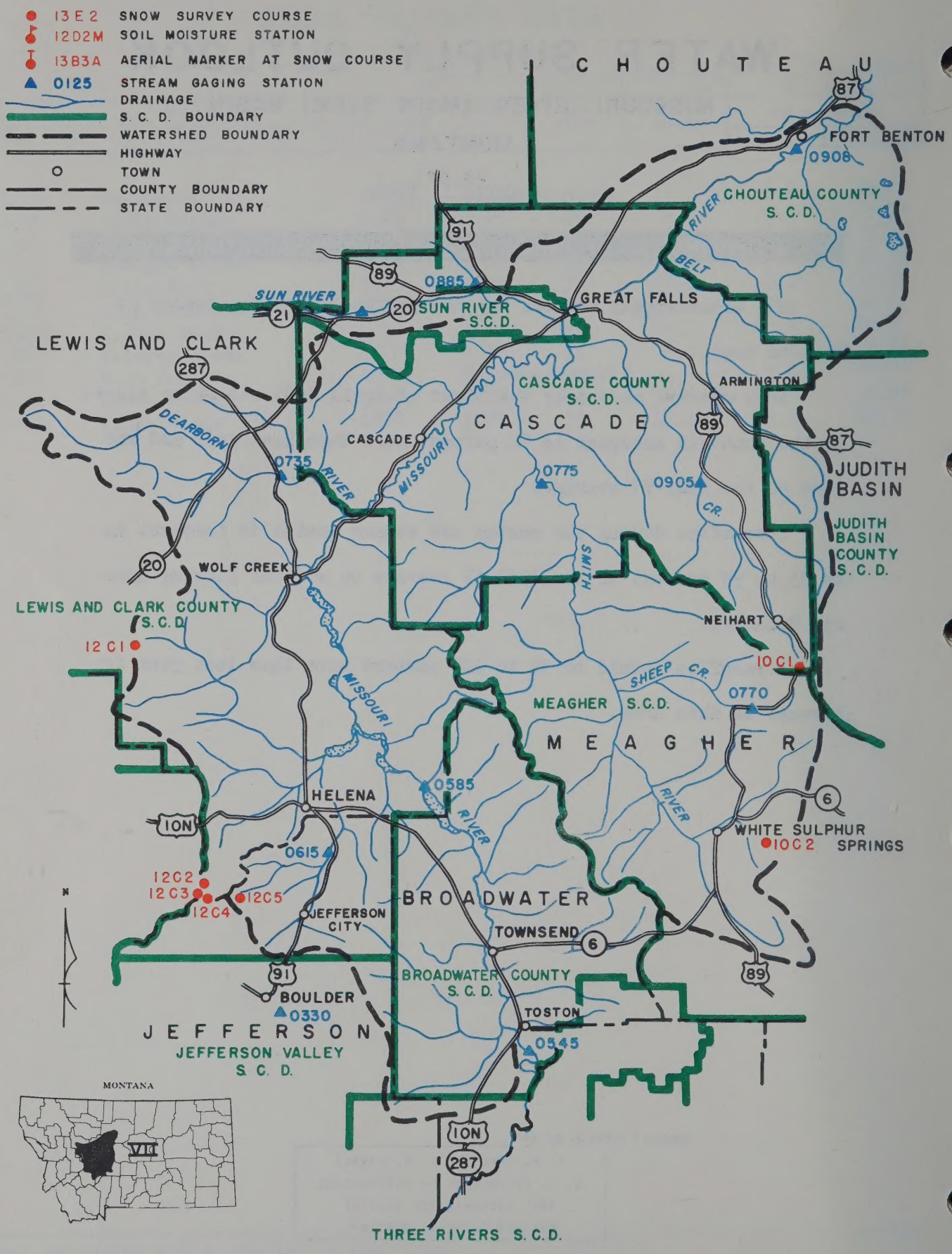
Report Prepared by

A. R. CODD AND P. E. FARNES
U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
BOX 855 BOZEMAN, MONTANA

THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY

USDA SCS LINCOLN NEBR 1960

5,L-16,400.1


LEGEND
13E2 SNOW SURVEY COURSE
12D2M SOIL MOISTURE STATION
13B3A AERIAL MARKER AT SNOW COURSE
0125 STREAM GAGING STATION
DRAINAGE
S. C. D. BOUNDARY
WATERSHED BOUNDARY
HIGHWAY
TOWN
COUNTY BOUNDARY
STATE BOUNDARY
CHOUTEAU
FORT BENTON
0908
CHOUTEAU COUNTY S. C. D.
RIVER
BELT
GREAT FALLS
0885
SUN RIVER
SUN RIVER S.C.D.
LEWIS AND CLARK
CASCADE COUNTY S. C. D.
CASCADE
ARMINGTON
DEARBORN
0735
MISSOURI
0775
0905
CR.
JUDITH BASIN
JUDITH BASIN COUNTY S. C. D.
WOLF CREEK
SMITH
LEWIS AND CLARK COUNTY S. C. D.
12C1
NEIHART
10C1
SHEEP CR.
0770
MEAGHER S.C.D.
MEAGHER
HELENA
0585
RIVER
WHITE SULPHUR SPRINGS
10C2
0615
12C2
12C3
12C4
12C5
JEFFERSON CITY
BROADWATER
TOWNSEND
BROADWATER COUNTY S. C. D.
BOULDER
0330
TOSTON
0545
JEFFERSON
JEFFERSON VALLEY S. C. D.
MONTANA
VII
THREE RIVERS S. C. D.
SCALE 10 0 10 20 30 40 MILES

WATER SUPPLY FORECASTS

WATERSHED VII

AS OF APRIL 1, 1962

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW LAST YEAR*	MEASURED FLOW AVERAGE
	MISSOURI RIVER					
0545	Toston (at) (3)	Apr-Sept	2455	105	1102	2342
		Apr-July	2119	105	886	2030
0908	Fort Benton (at) (5)	Apr-Sept	3686	100		3599
		Apr-July	3095	100		3076
	PRICKLY PEAR CREEK					
0615	Clancy (near)	Apr-Sept	19.9	83	9.7	23.9
		Apr-July	17.5	84	8.4	20.8

(3) Corrected for storage in Hebgen and Ennis Lakes.
(5) Corrected for storage in Canyon Ferry Reservoir.

*PROVISIONAL DATA FURNISHED BY U. S. GEOLOGICAL SURVEY

RESERVOIR STORAGE DATA

AS OF MARCH 31, 1962

(1000 Acre Feet)

NO.	RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE
0585	Canyon Ferry	2043.0	1217.0	1506.0	1585.0**
0645	Lake Helena	10.4	9.2	8.1	5.5**
0660	Holter Lake	81.9	81.0	11.3	54.3
0650	Hauser Lk. & Lk. Helena	62.5	58.4	55.1	44.3

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD)

SNOW SURVEY DATA

AS OF APRIL 1, 1962

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
						WATER CONTENT	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE
12C5	Chessman Reservoir	6200	3/28	25	5.0	1.2	5.1
10C2	Grasshopper	7000	3/28	28	7.2	1.6	5.6
10C1	Kings Hill	7950	3/26	46	13.5	9.1	13.8
12C1	Stemple Pass	6900	3/27	40	10.2	6.8	11.0
12C2	Tenmile, Lower	6250	3/26	29	8.0	4.3	7.1
12C3	Tenmile, Middle	6800	3/25	42	11.0	7.5	11.3
12C4	Tenmile, Upper	8000	3/25	47	14.0	9.5	14.4

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD). *ADJUSTED AVERAGE

WATER SUPPLY OUTLOOK

BEAVERHEAD, & JEFFERSON RIVER BASINS

MONTANA

AS OF:

APRIL 1, 1962

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

The water supply outlook for the coming irrigation season in the Beaverhead and Jefferson River basins is Good.

Snow surveys made near the first of April indicate the water stored in the mountain snowpack is very near average and 50 percent more than on April 1 last year. Two new snow courses, Call Road and Crockett Lake, have been established on the Ruby-Madison divide.

Streamflow is forecast to be above average in the headwaters of the Red Rock and Boulder River areas. The Big Hole River is expected to produce 90 percent average flow. Streamflow is expected to be much above last year in all tributaries to the Jefferson River.

Storage is below average in Lima Reservoir and above average in Ruby Reservoir.

Report Prepared by

A. R. CODD AND P. E. FARNES
U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
BOX 855 BOZEMAN, MONTANA

THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY

USDA-SCS-LINCOLN NEBR 1960.

5,L-16,394.1

5,L-16,394.2

USDA-SCS-LINCOLN, NEBR 1960

WATER SUPPLY FORECASTS

WATERSHED VIII

AS OF APRIL 1, 1962

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW LAST YEAR*	MEASURED FLOW AVERAGE
	RED ROCK RIVER					
0110	Kennedy Ranch (at)	May-Sept	58.2	106	20.4	54.9
		May-July	52.2	106	17.0	49.1
0125	Monida (near) (1)	Apr-Sept	91.1	105	35.4	86.4
		Apr-July	86.5	105	28.2	82.2
	BIG HOLE RIVER					
0255	Melrose (near)	Apr-Sept	689	90	397	770
		Apr-July	638	90	367	714
	BOULDER RIVER					
0330	Boulder (near)	Apr-Sept	79.6	100	46.0	79.9
		Apr-July	76.1	99	43.9	76.5
	JEFFERSON RIVER					
0345	Sappington (at)	Apr-Sept	983	91	472	1074
		Apr-July	872	91	421	958

(1) Corrected for storage in Lima Reservoir.

*PROVISIONAL DATA FURNISHED BY U. S. GEOLOGICAL SURVEY

RESERVOIR STORAGE DATA

AS OF MARCH 31, 1962

(1000 Acre Feet)

NO.	RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE
0120	Lima	84.0	17.8	13.1	33.9
0205	Ruby	38.8	28.7	27.1	26.5**

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD)

SNOW SURVEY DATA

AS OF APRIL 1, 1962

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
						WATER CONTENT	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE
13D14	Anderson Meadow	7000	3/29	29	7.0	4.5	8.4*
13D4	Below Big Hole Pass	6900	3/26	46	13.2	8.7	14.7*
13D3	Big Hole Pass	7240	3/26	50	15.8	10.4	17.4*
13D10	Bloody Dick	7600	3/28	43	11.3	9.4	12.1*
11E11	Blue Ledge Mine	6700	3/30	62	22.5	14.1	17.3
11D7	Call Road	8050	3/19	44	13.1	-	-
12E3	Camp Creek	6800	3/28	41	12.1	6.1	10.4
12C5	Chessman Reservoir	6200	3/28	25	5.0	1.2	5.1
11D6	Crockett Lake	8400	3/19	45	13.5	-	-
13D5	East Boundary	6700	3/26	29	7.8	3.8	8.5*
13D15	Elk Horn	8450	3/27	40	11.0	6.4	10.7
13D2	Gibbons Pass	7100	3/29	69	22.5	18.6	25.4
13D9	Gold Stone	8100	3/28	56	15.2	10.0	15.8*
13D8	Jahnke Creek	7340	3/28	36	8.4	6.7	11.7*
11E12	Kilgore	6200	3/30	44	14.8	9.5	10.3
11E4	Lakeview Canyon	6930	3/27	55	14.3	9.6	11.3*
11E3	Lakeview Ridge	7400	3/27	50	12.2	7.6	10.1*
13E1	Lemhi Pass	7480	3/22	31	7.4	6.5	9.6*
12E2	Limekiln	6950	3/21	0	0	0	1.4*
13D6	Miner Forks	7300	3/27	44	13.1	9.4	13.2*
13D7	Miner Lake	6720	3/27	35	8.6	5.9	9.1*
13D16	Moose Creek	6200	3/27	45	14.6	11.8	18.3
12C6	Picnic Grounds	6500	4/2	23	6.0	2.0	5.3*
12D1	Pipestone Pass	7200	3/23	29	6.9	4.9	6.0
13D11	Selway Junction	6800	Discontinued			6.9	9.1*
13C7	Storm Lake	7780	3/29	57	15.7	11.2	15.6
12C2	Tenmile, Lower	6250	3/26	29	8.0	4.3	7.1
12C3	Tenmile, Middle	6800	3/25	42	11.0	7.5	11.3
12C4	Tenmile, Upper	8000	3/25	47	14.0	9.5	14.4
13D12	Terrell Creek	6650	Discontinued			3.2	4.8*
13E2	Trail Creek	7090	3/22	32	7.7	6.2	9.1*
11E1	White Pine Ridge	8850	3/21	24	5.6	4.2	6.2*
13D13	Wise River	6300	3/29	20	5.2	2.7	5.6*

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD). *ADJUSTED AVERAGE

WATER SUPPLY OUTLOOK

MADISON, & GALLATIN RIVER BASINS

MONTANA

AS OF:

APRIL 1, 1962

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

The water supply outlook for the coming irrigation season in the Madison and Gallatin River basins is Good to Excellent.

Snow surveys made near the first of April show the water stored in the mountain snowpack is above average and greater than last year. In the Madison drainage, the snowpack is 32 percent greater than last year and 7 percent above the 1943-57 average. The Gallatin drainage snowpack is 31 percent more than last year and 15 percent above average.

Streamflow is forecast to be 5 to 10 percent above average on the Madison, which is 40 to 60 percent more than last year.

In the Gallatin drainage, streamflow is expected to be 15 to 25 percent above average. This is much above the flow produced last year.

Heavy snow last fall and above average soil moisture are expected to produce good late summer flows, which will provide late season irrigation water.

Report Prepared by

A. R. CODD AND P. E. FARNES
U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
BOX 855 BOZEMAN, MONTANA

THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY

USDA-SCS-LINCOLN NEBR 1960

5,L-16,521.1

TOWNSEND
BROADWATER CO. S. C. D.
MEAGHER S. C. D.
MEAGHER
RINGLING
BROADWATER
TOSTON
0545
JEFFERSON
0525
GALLATIN
PARK S. C. D.
PARK
THREE FORKS
MANHATTAN
THREE RIVERS S. C. D.
SAPPINGTON
0345
BELGRADE
0480
BOZEMAN
11D2M
10D1
0500
0495
0435
10D3
GALLATIN VALLEY
10D4
NORRIS
0410
0405
ENNIS LAKE
ENNIS
KARSTS KAMP S. C. D.
VIRGINIA CITY
MADISON
CAMERON S. C. D.
MADISON
RUBY VALLEY S. C. D.
WYOMING
11E5
11E6
0385
0380
HEBGEN LAKE
11E7
WEST YELLOWSTONE
0375
10E2
11E8
BEAVERHEAD
BEAVERHEAD S. C. D.
11E9
MONTANA
IX
N
LEGEND
13E2 SNOW SURVEY COURSE
12D2M SOIL MOISTURE STATION
13B3A AERIAL MARKER AT SNOW COURSE
0125 STREAM GAGING STATION
DRAINAGE
S. C. D. BOUNDARY
WATERSHED BOUNDARY
HIGHWAY
TOWN
COUNTY BOUNDARY
STATE BOUNDARY
SCALE 10 0 10 20 MILES

WATER SUPPLY FORECASTS

WATERSHED IX

AS OF APRIL 1, 1962

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW	
					LAST YEAR*	AVERAGE
	MADISON RIVER					
0375	West Yellowstone (at)	Apr-Sept	233	108	168	216
		Apr-July	177	107	123	165
0385	Grayling (near) (2)	Apr-Sept	487	109	329	448
		Apr-July	397	111	241	375
0410	McAllister (near) (3)	Apr-Sept	807	105	513	756
		Apr-July	668	108	383	613
	GALLATIN RIVER					
0435	Gateway (near)	Apr-Sept	552	120	331	459
		Apr-July	490	120	267	395
	EAST GALLATIN RIVER					
0480	Bozeman (at)	Apr-Sept	53.2	115	20.9	46.4
		Apr-July	46.7	115	16.7	40.7
	HYALITE CREEK					
0500	Ranger Station (at)(4)	Apr-Sept	41.1	114	24.2	36.1
		Apr-July	35.3	114	20.6	31.0
	GALLATIN RIVER					
0525	Logan (at)	Apr-Sept	624	127	230	492
		Apr-July	537	127	164	422

(2) Corrected for storage in Hebgen Lake.
(3) Corrected for storage in Hebgen and Ennis Lakes.
(4) Corrected for storage in Middle Creek Reservoir.

*PROVISIONAL DATA FURNISHED BY U. S. GEOLOGICAL SURVEY

RESERVOIR STORAGE DATA

AS OF MARCH 31, 1962

(1000 Acre Feet)

NO.	RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE
0380	Hebgen Lake	345.0	110.8	152.1	208.3
0405	Ennis Lake	41.0	39.1	37.9	35.3
0500	Middle Creek	8.0	2.7	3.8	4.1**

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD)

SNOW SURVEY DATA

AS OF APRIL 1, 1962

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	WATER CONTENT	
						LAST YEAR	AVERAGE
11E9	Big Springs	6500	3/30	69	25.6	19.8	23.6
11D7	Call Road	8050	3/19	44	13.1	-	-
11D6	Crockett Lake	8400	3/19	45	13.5	-	-
10D4	Devil's Slide	8100	3/31	80	25.4	17.1	21.2
11E5	Hebgen	6550	3/30	39	11.2	9.7	12.6
10D3	Hood Meadow	6600	3/31	38	11.4	7.6	9.8
11E10	Island Park	6315	3/29	62	20.3	15.0	17.8
11D5	Jack Creek	7600	3/20	28	7.2	3.6	-
10D1	New World	6700	3/24	40	9.6	9.3	10.9
10E2	Norris Basin	7500	3/31	42	12.4	8.7	10.3*
11D3	North Meadow	7500	3/20	38	10.6	9.5	-
10D10	Sacajawea	6500	3/23	44	13.2	10.0	-
11E6	Twenty-One Mile	7150	3/30	57	17.8	14.8	19.2
11E8	Valley View	6500	3/30	58	19.4	13.4	16.4
11E7	West Yellowstone	6700	3/30	37	11.0	9.3	12.7

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD). *ADJUSTED AVERAGE

WATER SUPPLY OUTLOOK

JUDITH, & MUSSELSHELL RIVER BASINS

MONTANA

AS OF:

APRIL 1, 1962

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

The water supply outlook for the coming irrigation season in the Judith and Musselshell River basins is Good.

Snow surveys made near the first of April indicate the water stored in the snowpack is 230 percent of last year and 5 percent above the 1943-57 average.

Streamflow is expected to be near average and considerably greater than last year.

Reservoir storage is below average but should improve during spring runoff.

Report Prepared by

A. R. CODD AND P. E. FARNES
U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
BOX 855 BOZEMAN, MONTANA

THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY

USDA-SCS-LINCOLN, NEBR 1960

5,L-16,516.1

MONTANA
X
N
87
BIG SANDY S. C. D.
BIG SANDY
9AI
WARRICK
BLAINE
1095
LOMA
FORT BENTON
CHOUTEAU
PARADISE S. C. D.
LANDUSKY
19
0908
CHOUTEAU CO. S. C. D.
MISSOURI RIVER
1150
PHILLIPS
PHILLIPS S. C. D.
LEGG
WINIFRED
FORT PECK RESERVOIR
ARROW RIVER
FERGUS CO. S. C. D.
ROY
MECAHA
GARFIELD CO. S. C. D.
FERGUS
PETROLEUM
GARFIELD
STANFORD
JUDITH BASIN S. C. D.
MOCCASIN
BASIN CO.
JUDITH RIVER
LEWISTOWN
PETROLIA S. C. D.
WINNETT
MOSBY
20
JUDITH
BASIN
1100
1305
10C1
9C1
FLAT WILLOW CREEK
MUSSELSHELL
ROSEBUD
6
MEAGHER
1155
UPPER MUSSELSHELL S. C. D.
10C2
LOWER MUSSELSHELL
ROSEBUD CO. S. C. D.
S. C. D.
1185
WHEATLAND
HARLOWTON
S. C. D.
RIVER
S. FORK
1205
MUSSELSHELL
GOLDEN VALLEY
ROUNDUP
MEAGHER
CR.
1220
LEBO
RYEGATE
10C3
2005
19
87
3
LEGEND
13E2 SNOW SURVEY COURSE
12D2M SOIL MOISTURE STATION
13B3A AERIAL MARKER AT SNOW COURSE
0125 STREAM GAGING STATION
DRAINAGE
S. C. D. BOUNDARY
WATERSHED BOUNDARY
HIGHWAY
TOWN
COUNTY BOUNDARY
STATE BOUNDARY
SCALE 10 0 10 20 30 40 MILES

WATER SUPPLY FORECASTS

WATERSHED X

AS OF APRIL 1, 1962

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW LAST YEAR*	MEASURED FLOW AVERAGE
	MUSSELSHELL RIVER					
	South Fork					
1185	Martinsdale (above)	Apr-Sept	57.0	106	10.7	53.6
		Apr-July	54.7	106	10.3	51.4
1205	Harlowton (at) (9)	Apr-Sept	85.5	103	-	83.0
		Apr-July	84.5	103	-	82.0
	MISSOURI RIVER					
1095	Virgelle (at) (6)	Apr-Sept	4362	99	-	4393
		Apr-July	3720	98	-	3803
1150	Zortman (near) (6)	Apr-Sept	4710	98	-	4806
		Apr-July	4085	98	-	4143

(6) Corrected for storage in Canyon Ferry and Tiber Reservoirs.
(9) Corrected for storage in Durand and Martinsdale Reservoirs.

*PROVISIONAL DATA FURNISHED BY U. S. GEOLOGICAL SURVEY

RESERVOIR STORAGE DATA

AS OF MARCH 31, 1962

(1000 Acre Feet)

NO.	RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE
1105	Ackley	5.8		-	4.2
1165	Durand	7.0	1.9	4.3	5.3
1190	Martinsdale	23.1	2.1	4.0	10.2

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD)

SNOW SURVEY DATA

AS OF APRIL 1, 1962

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
						WATER CONTENT	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE
10C5	Bald Ridge	7500	3/27	41	12.6	8.4	-
9C1	Crystal Lake	6100	3/29	45	13.4	4.7	11.8
10C2	Grasshopper	7000	3/28	28	7.2	1.6	5.6
10C1	Kings Hill	7950	3/26	46	13.5	9.1	13.8
10C3	Porcupine	6500	3/27	31	7.8	4.8	7.1
9A1	Rocky Boy	5200	4/2	14	4.4	0	5.2

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD). *ADJUSTED AVERAGE

WATER SUPPLY OUTLOOK

UPPER YELLOWSTONE RIVER BASIN

MONTANA

AS OF:

APRIL 1, 1962

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

The water supply outlook for the coming irrigation season in the Upper Yellowstone River basin is Good to Excellent.

Snow surveys made near the first of April show the water stored in the mountain snowpack is 50 percent more than last year and 6 percent above the 1943-57 average. Snow courses established last year in the Rock Creek drainage, Grizzly Peak, Timberline Creek, and Gertrude Lake, show a large increase over last year's measurements.

Streamflow is forecast above average for all tributaries of the Yellowstone River, except the Clarks Fork, where slightly below average runoff is expected.

Good soil moisture and heavy snow last fall should provide a good supply of water for late season irrigation.

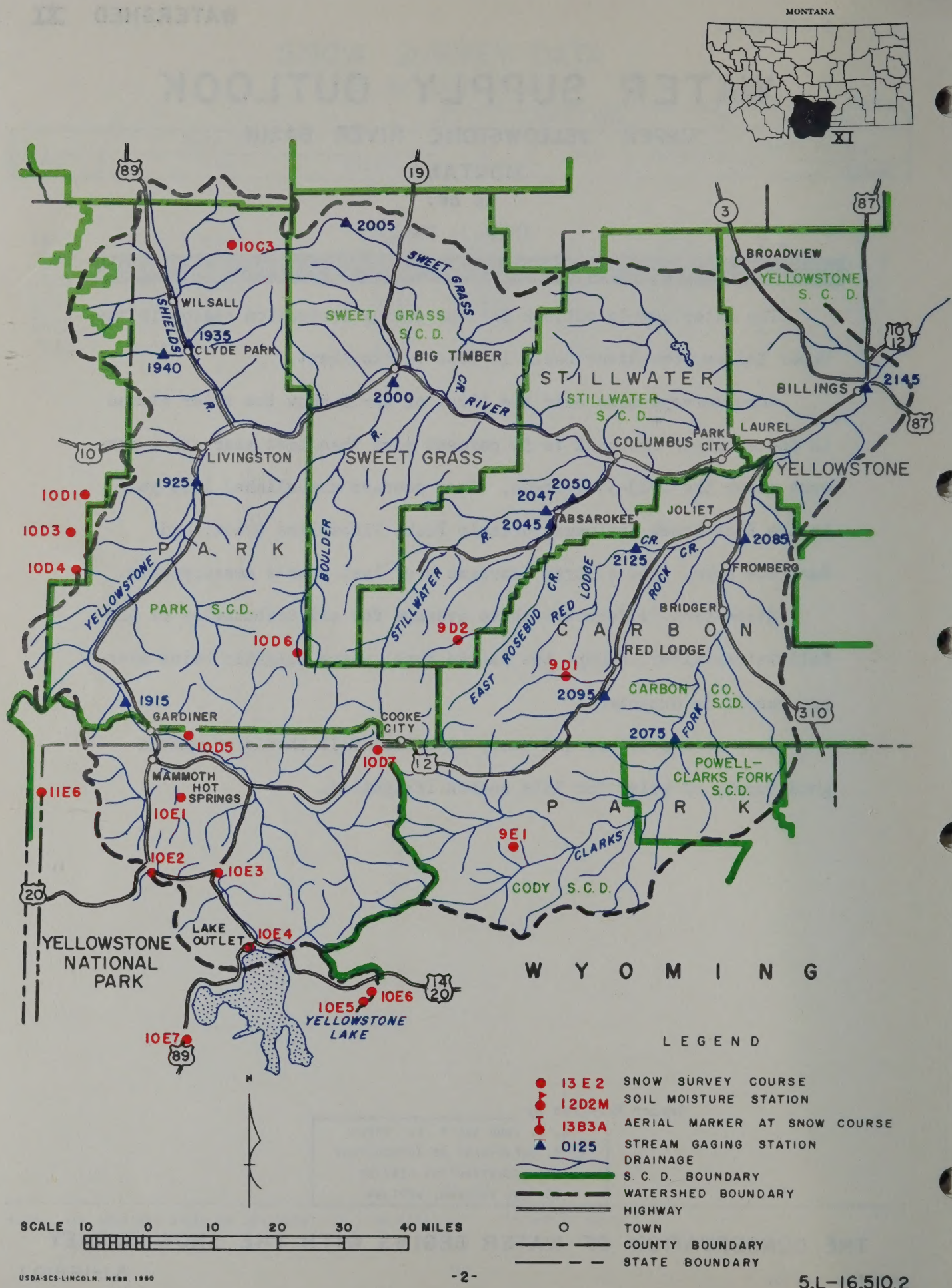
Report Prepared by

A. R. CODD AND P. E. FARNES
U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
BOX 855 BOZEMAN, MONTANA

THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY

USDA SCS LINCOLN NEBR 1960

5,L-16,510.1



USDA-SCS-LINCOLN, NEBR. 1960

5,L-16,510.2

WATER SUPPLY FORECASTS

WATERSHED XI

AS OF APRIL 1, 1962

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW LAST YEAR*	MEASURED FLOW AVERAGE
	YELLOWSTONE RIVER					
1915	Corwin Springs (at)	Apr-Sept	2236	113	1358	1980
		Apr-July	1851	112	1129	1649
1925	Livingston (near)	Apr-Sept	2525	112	1440	2252
		Apr-July	2075	111	1186	1863
2145	Billings (at)	Apr-Sept	4730	111	2380	4261
		Apr-July	4050	111	1957	3657
3090	Miles City (at) (12)	Apr-Sept	7125	106	3097	6721
		Apr-July	6215	106	2571	5883
3295	Sidney (near) (12)	Apr-Sept	7292	105	2873	6921
		Apr-July	6400	104	2447	6137
	SHIELDS RIVER					
1935	Clyde Park (at)	Apr-Sept	132	119	36.1	111
		Apr-July	122	119	34.3	103
	ROSEBUD CREEK					
2045	Absarokee (near) (11)	Apr-Sept	294	110	146	267
		Apr-July	235	110	106	216
	STILLWATER RIVER					
2050	Absarokee (near) (11)	Apr-Sept	684	110	355	620
		Apr-July	575	110	281	523
	CLARKS FORK RIVER					
2075	Chance (at)	Apr-Sept	600	98	442	617
		Apr-July	543	98	396	552
2085	Edgar (at)	Apr-Sept	628	97	449	652
		Apr-July	561	97	378	575
	ROCK CREEK					
2095	Red Lodge (near)	Apr-Sept	133	118	77.6	112
		Apr-July	102	118	58.0	86.3

(11) Corrected for storage in Mystic Lake.
(12) Corrected for storage in Buffalo Bill and Boysen Reservoirs.

*PROVISIONAL DATA FURNISHED BY U. S. GEOLOGICAL SURVEY

RESERVOIR STORAGE DATA

AS OF MARCH 31, 1962

(1000 Acre Feet)

NO.	RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE
2120	Cooney Reservoir	27.5	15.2	-	12.7
2040	Mystic Lake	20.8	4.4	5.1	5.7

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD)

SNOW SURVEY DATA

AS OF APRIL 1, 1962

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	WATER CONTENT	
						LAST YEAR	AVERAGE
10C5	Bald Ridge	7500	3/27	41	12.6	8.4	-
9D1	Camp Senia	7890	3/30	49	9.3	2.7	7.3
10E3	Canyon	7500	4/1	61	19.4	13.3	16.0
10D7	Cooke City	7400	3/31	35	9.3	7.4	9.5
10D5	Crevice Mountain	8400	3/30	41	12.1	5.6	10.5
10D4	Devil's Slide	8100	3/31	80	25.4	17.1	21.2
10E6	East Entrance	7000	3/31	35	9.7	6.8	11.9*
9D3	Gertrude Lake	9250	3/30	73	17.8	8.0	-
9D5	Grizzly Peak	8400	3/29	89	23.6	8.2	-
10D3	Hood Meadow	6600	3/31	38	11.4	7.6	9.8
10D6	Independence	8000	3/26	59	19.8	15.2	18.4*
10E4	Lake Camp	7850	3/31	53	14.4	8.6	12.1*
9E1	Lodgepole	8200	3/28	45	11.1	7.4	13.1*
10E1	Lupine Creek	7300	4/1	46	12.6	8.9	11.6*
10D12	Monument Peak	9000	3/26	78	27.6	21.2	-
10D1	New World	6700	3/24	40	9.6	9.3	10.9
10E2	Norris Basin	7500	3/31	42	12.4	8.7	10.3*
10C3	Porcupine	6500	3/27	31	7.8	4.8	7.1
10D10	Sacajawea	6550	3/23	44	13.2	10.0	-
10E5	Sylvan Pass	7100	3/30	45	10.9	11.2	15.9
10E7	Thumb Divide	7900	4/1	82	29.0	16.1	25.4
9D4	Timberline Creek	8850	3/30	77	18.8	9.2	-

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD). *ADJUSTED AVERAGE